

stored bitmaps are used to control one or more demand printers and/or any other type of display device, such as a laser printer, a CRT, an LCD display or the like so that the device displays pages having fixed and variable information thereon. Alternatively, the master and variable page files may be premerged to create a plurality of combined files each representing a page to be reproduced with master and variable information. The combined files can be then sent to any type of printer or other display device, whether local or remote. Also, the combined files can be converted to a suitable format (e.g., Acrobat® PDF format) and transmitted to a remote location using a facsimile machine, e-mail, the Internet/worldwide web or other transmission medium, if desired. Advantageously, the combined files may be transmitted over the Internet or any other networked or linked computers, such as a company intranet. In this case, as electronic page containing customized data can be sent over the Internet/intranet to a user based upon user demographic(s), a user search and/or any other identifiable user interest(s). For example, a customized Internet page could be sent with links to other web pages of interest to a user or a customized page may be sent in response to a user search for information on a particular subject. Alternatively, or in addition, ads could be generated and sent as a web page to one or more users based upon user demographics. As a further example, personnel information concerning a particular employee may be sent to the employee in response to a request for information.--

Please replace the paragraph beginning on page 18, line 5 with the following:

--Fig. 5 illustrates in diagrammatic generalized form the method of the present invention.

For the purpose of explaining the present invention, as an example, it will be assumed that the demand print system 62a will be operated to produce a number of multiple-page books in the form of a brochure in duplex (or "saddle-stitch") format. Figs. 6a and 6b illustrate four pages P1-P4 printed on a single sheet of paper 100 and to be included in a brochure. The sheet of paper 100 includes a first side 100a with printed pages P1, P4 thereon and a second side 100b with pages P2, P3 printed thereon. (As will become evident hereinafter, the use of designations P1-P4 is not meant to imply that such pages will necessarily become pages 1, 2, 3 and 4 of the finished book.) In addition, pages P1-P4 are imposed such that the page P1 is placed on a

right-hand portion 100a-r of the side 100a while the page P4 is placed on a left-hand portion 100a-l of the side 100a. Further, the page P2 is placed on a left-hand portion 100b-l of the side 100b while the page P3 is placed on a right-hand portion 100b-r of the side 100b. In this fashion, when the sheet of paper 100 is folded along a fold line 102 with the pages P1 and P4 on the outside, the pages P1-P4 appear in sequence. (The format shown in Figs. 6A and 6B is often referred to as "saddle stitch" imposition and is commonly used in magazines.) Because each book to be produced in this example includes multiple sheets of paper (or "forms"), each folded once along a fold line, the imposition process takes into account shingling effects but not bottling effects. It should be noted that such effects will generally have to be taken into account when more than two pages are to be printed on a single side of a sheet of paper and thereafter folded multiple times and assembled with other multiple-folded printed sheets of paper to create a book.--

Please replace the paragraph beginning on page 25, line 23 with the following:

--The database 108 is assembled by creating an ASCII file having a plurality of records wherein each record includes one or more fields entered into the database in tab-delimited format (i.e. the fields are separated from one another in each record by tab keystrokes and the records are separated from one another by line returns) and wherein the fields are arranged under field names of a header. Each field may include text to be reproduced on a page or a name of an image file stored in the memory 53 and defining an image to be reproduced on a page.--

Please replace the paragraph beginning on page 48, line 1 with the following:

--Alternatively, the master and variable data streams may be overlaid by first processing the master pages and then overlaying the variable pages onto the master pages.--

Please replace the paragraph beginning on page 52, line 11 with the following:

A5 --Alternatively, as described above, the master page files 122 and the variable page files 137, 138 may be provided separately to the print system 79 and overlaid--

Please replace the paragraph beginning on page 52, line 22 with the following:

A6 --For purposes of illustration, it is assumed that the RIP 82 interprets the widely used PostScript® PDL language. (PostScript® is a registered trademark of Adobe Systems, Inc.) The PostScript® language is fully described in the *PostScript® Language Reference Manual, Second Edition* (1990), from Adobe Systems, Inc., which is incorporated herein by reference. Certain imposition-on-the-fly procedures 454 according to the present invention are downloaded to the RIP 82. (The procedures 454 include, for example, *ImposeJob*, *ImposeFile* and various redefined PostScript® operators which are described in detail below). The imposition-on-the-fly procedures 454 will be used by the RIP 82 to process the instruction set and the page descriptions contained in the merged PostScript® files 450 to efficiently transmit pages for rendering by the demand printer 84. (For ease in illustration, it is assumed the master and variable page files were premerged into merged file 450. It is understood, however, that the master and variable page files could also be overlaid.)--

Please replace the paragraph beginning on page 81, line 33 with the following:

A7 --If Portrait is true, the orientation of the device must be converted from portrait to landscape. As illustrated in Fig. 26A, a portrait-orientated page 592 is represented in a Cartesian

A7 coordinate system with an origin at point O_p . The portrait-orientated page 592 has a width PageX and a height PageY. The rendering area on the page 592 is bordered by a clipping path 594, which may be defined by the coordinates of its lower-left corner (ll_x , ll_y) and the coordinates of its upper-right corner (ur_x , ur_y).--

Please replace the paragraph beginning on page 83, line 6 with the following:

A8 --If the block 590 determines that the variable Portrait is false, the orientation of the device must be converted from landscape to portrait. Referring also to Fig. 26B, a landscape-oriented page 608 is specified in a Cartesian coordinate system with an origin O_L . The rendered area on the page 608 is bordered by a clipping path 610 defined by the coordinates of its lower-left and upper-right corners. The landscape-oriented page 608 is converted to a portrait-oriented page 612 by translating the origin O_L in the positive y-direction and then rotating the coordinate system 90 degrees clockwise about the origin O_L . This generates a portrait-oriented coordinate system with an origin O_p .--